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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,624	12/17/2003	Jobst U. Gellert	10984-1062	4053

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MOLD-MASTERS LIMITED
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INTELLECTUAL PROPERTY DEPARTMENT
GEORGETOWN, ON L7G-4X5
CANADA

EXAMINER

HUSON, MONICA ANNE

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,624

Applicant(s)

GELLERT ET AL.

Examiner

Monica A. Huson

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1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 21-27 and 29 is/are pending in the application.
- 4a) Of the above claim(s) 1-17, 25-27 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18 and 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 032404.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-17, 25-27, and 29, drawn to a molding apparatus, classified in class 425, subclass 542+.
- II. Claims 18 and 21-24, drawn to a molding method, classified in class 264, subclass 40.7.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process, such as one wherein the valve pin does not move following seal formation between the melt source and the gate passage.

During a telephone conversation with Linda Horner on 31 January 2006 a provisional election was made without oral traverse to prosecute the invention of Group II, claims 18 and 21-24. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-17, 25-27, and 29 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Jeffery (U.S. Patent 2,111,857). Regarding Claim 18, Jeffery shows that it is known to carry out a method for controlling melt flow in an injection molding apparatus, the injection molding apparatus having a mold block defining a mold cavity having a gate passage therego, a manifold and at least one nozzle defining a nozzle melt channel for transferring melt from a melt source to the gate passage (Figure 17), the method comprising providing a valve plug at the gate passage that is in an open position such that the valve plug is at least partially removed from the gate passage to permit melt flow through the gate passage (Figure 17, element 80; It is being interpreted that Jeffery's valve plug is functionally equivalent to applicant's valve plug.); moving the valve plug to a closed position (Page 4, column 2, lines 38-42); solidifying melt immediately upstream of the valve plug to form a slug to create a seal between the melt source and the gate passage (Page 4, column 2, lines 2-30); and moving the valve plug back to the open position after forming the seal between the melt source and the gate passage (Page 4, column 2, lines 32-38; It is noted that the valve will have to be opened to enable a subsequent molding shot.).

Regarding Claim 21, Jeffery shows the process as claimed as discussed in the rejection of Claim 18 above, including a method wherein the mold block includes a first mold plate and a second mold plate, and the first and second mold plate together define the mold cavity, and the

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method further comprises positioning the first and second mold plates in an ejection position after forming the seal between the melt source and the gate passage, wherein in the ejection position the first and second mold plates are separated sufficiently for the ejection of the molded part from the mold cavity (Page 2, column 2, lines 64-67; Page 9, column 2, lines 31-44).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffery, in view of Jobst (U.S. Patent 2,456,421).

Regarding Claim 22, Jeffery shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not show heating the slug. Jobst shows that it is known to carry out a method of molding including positioning the first and second mold plates in a mold closed position after ejecting the molded part from the mold cavity, wherein in the mold closed position the first and second mold plates mate together to define the mold cavity (Column 4, lines 71-75; Column 5, lines 1-5); and heating the slug to liquefy the slug sufficiently to permit melt to flow into the gate passage and into the mold cavity (Column 2, lines 10-22). Jobst and Jeffery are combinable because they are concerned with a similar technical field, namely, methods molding using valves to regulate flow to the cavity. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Jobst's heating step during

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Jeffery's molding method in order to eliminate the possibility of blisters and blemishes that may result if leftover cold slug material is injected in the subsequent shot (see Jobst, Column 1, lines 51-55; Column 2, lines 1-22).

Regarding Claim 23, Jeffery shows the process as claimed as discussed in the rejection of Claim 21 above, but he does not show heating the slug. Jobst shows that it is known to carry out a method of molding including positioning the first and second mold plates in a mold closed position after ejecting the molded part from the mold cavity, wherein in the mold closed position the first and second mold plates mate together to define the mold cavity (Column 4, lines 71-75; Column 5, lines 1-5); moving the valve pin to drive the slug out of the gate passage (Column 2, lines 16-22; Column 5, lines 1-5); and heating the slug to liquefy the slug sufficiently to permit melt to flow into the gate passage and into the mold cavity (Column 2, lines 10-22). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Jobst's heating step during Jeffery's molding method in order to eliminate the possibility of blisters and blemishes that may result if leftover cold slug material is injected in the subsequent shot (see Jobst, Column 1, lines 51-55; Column 2, lines 1-22).

Regarding Claim 24, Jeffery shows the process as claimed as discussed in the rejection of Claim 18 above, including a method wherein the mold may have many different forms depending upon the articles which are to be molded (Page 4, column 2, lines 73-75; Page 5, column 1, lines 5-9). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to form Jeffery's mold to include a mold block that includes a plurality of mold cavities and a plurality of gate passages thereto, and wherein the plurality of gate passages are in fluid communication with the nozzle melt channel via a common inlet

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portion, and wherein the closed position the valve pin cooperates with the common inlet portion to prevent melt flow into the plurality of mold cavities in order to accommodate specific molding article quantities and characteristics.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Monica A Huson
February 28, 2006



MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER